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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,861	12/04/2003	Curt E. Metzbower	LDC-913	7904

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EXAMINER	
LEWIS, RALPH A	

ART UNIT	PAPER NUMBER
3732	

MAIL DATE	DELIVERY MODE
12/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

supplemental ***Notice of Allowability***	**Application No.** 10/727,861	**Applicant(s)** METZBOWER, CURT E.	
	Examiner Ralph A. Lewis	**Art Unit** 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *attached copy of printer readable claims*.

2. ☒ The allowed claim(s) is/are *1-22*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Examiners Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The present claim versions are identical to those presented in the amendment of April 24, 2007, except for the corrected status identifiers in claims 2, 6-10, 16-18 and 21 and the incorporation of the examiner's amendment of July 18, 2007. The text quality of the April 24, 2007 facsimile amendment was unreadable to the printing branch of the Office.

Claim 1. (Currently amended) A method of extruding dental material from a ~~capsule-like~~ cartridge, comprising:

providing a ~~capsule-like~~ cartridge having an elongated body, ~~and~~ a nozzle, and a piston,

said elongated body having an inner chamber wall and end wall portion, said elongated body enclosing dental material, and,

said nozzle having a cylindrical nozzle channel with a substantially uniform diameter, an inner channel wall enclosing said nozzle channel, and a channel wall exit orifice rim, said nozzle extending from said end wall portion of said elongated body,

said inner chamber wall having a chamber wall exit port rim, said chamber wall exit port rim having an opening and being connected to said inner chamber wall of said elongated body and said inner channel wall of said nozzle, said chamber wall exit port rim having a chamber wall exit port rim effective diameter D_1, said ~~inner channel wall~~ nozzle channel having an ~~inner channel wall~~ effective diameter D_2, said ~~inner channel wall~~ nozzle channel effective diameter D_2 effectively being greater than said chamber wall exit port rim effective diameter D_1, said end wall portion of said elongated body having a hemispherical exterior surface and an arcing interior surface, said end ~~body~~ wall portion having substantially greater thickness than said inner chamber wall of said elongated body~~.~~, and

said piston being inserted into said elongated body, wherein said piston has a side wall and semi-circular front-facing portion, said side wall being complementary to said inner chamber wall of said elongated body and said front-facing portion having a complementary shape to said interior surface of said end wall portion of said elongated body~~.~~, and

applying force to said piston to extrude said dental material through said nozzle of said cartridge.

Claim 2. (Currently amended) The method of claim 1 wherein said ~~capsule-like~~ cartridge further comprises a cap, said cap being supported by said nozzle.

Claim 3. (Original) The method of claim 2 wherein said nozzle extends from said body and said cap closes an outer end of said nozzle to seal the contents of the cartridge against ingress of any surrounding contaminating matter.

Claim 4. (Original) The method of claim 2 wherein said cap is color-coded to indicate desired properties of the contents of the cartridge.

Claim 5. (Currently amended) The method of claim 1 wherein ~~said capsule-like cartridge further comprises a piston, and~~ said piston and said body are formed from plastic material, said plastic material being impervious to the transmission of ambient light, thereby rendering the cartridge adapted to contain light-curable material in a manner to prevent premature curing of such material while stored in such cartridge.

Claim 6. (Currently amended) The method of claim 1 wherein said ~~inner channel wall~~ nozzle channel effective diameter D_2 is at least 5 percent greater than said chamber wall exit port rim effective diameter D_1.

Claim 7. (Currently amended) The method of claim 1 wherein said ~~inner channel wall~~ nozzle channel effective diameter D_2 is at least 10 percent greater than said chamber wall exit port rim effective diameter D_1.

Claim 8. (Currently amended) The method of claim 1 wherein said ~~inner channel wall~~ nozzle channel effective diameter D_2 is at least 20 percent greater than said chamber wall exit port rim effective diameter D_1.

Claim 9. (Currently amended) The method of claim 1 wherein said ~~inner channel wall~~ nozzle channel effective diameter D_2 is at least 3 percent greater than said chamber wall exit port rim effective diameter D_1.

Claim 10. (Currently amended) The method of claim 1 wherein said inner chamber wall has an inner chamber wall effective diameter D_3, and said inner chamber wall effective diameter D_3 is greater than said ~~inner channel wall~~ nozzle channel effective diameter D_2.

Claim 11. (Currently amended) A ~~capsule-like~~ cartridge, adapted to be operated solely by being mounted upon an ejector-~~type~~ holder, said cartridge comprising:

an elongated body, said body being molded from rigid plastic material and having a cylindrical body wall, said cylindrical body wall having a cylindrical inner body wall, a predetermined length, uniform interior diameter, a uniform exterior diameter and a central axis, one end of said cylindrical body wall being open and formed at the extremity thereof with an annular relatively short circular exterior flange, said flange being adapted to be detachably mounted within a complementary seat in an ejector type holder, the opposite end of said body being closed by an end wall having a

hemispherical exterior surface and an arcing interior surface, said end wall having substantially greater thickness than said cylindrical body wall,

a nozzle molded integrally with and extending from said end wall at an obtuse angle to said central axis of said cylindrical body wall to direct discharge from said cartridge to the interior of an oral cavity, said nozzle having a cylindrical nozzle channel with a substantially uniform diameter, an effectively cylindrical inner nozzle wall enclosing said nozzle channel, said nozzle having a nozzle entrance passage, through said end wall to the nozzle,

~~said nozzle having an inner channel wall,~~ and a channel wall exit orifice rim,

said cylindrical inner body wall of said elongated body having a chamber wall exit port rim, opening between said inner chamber wall and said inner ~~channel~~ nozzle wall, said chamber wall exit port rim having a chamber wall exit port rim effective diameter D_1, said ~~inner channel wall~~ nozzle channel having an ~~inner channel wall~~ effective diameter D_2, said ~~inner channel wall~~ nozzle channel effective diameter D_2 effectively being greater than said chamber wall exit port rim effective diameter D_1, and

a piston having a side wall and semi-circular front facing portion, said side wall being closely complementary to said cylindrical inner body wall and inserted into the open end thereof and said front facing portion having a complementary shape to said interior surface of said end wall of said elongated body.

Claim 12. (Original) The cartridge of claim 11 further comprising a cap, said cap being supported by said nozzle.

Claim 13. (Original) The cartridge of claim 12 wherein said nozzle extends from said body and said cap closes an outer end of said nozzle to seal the contents of the cartridge against ingress of any surrounding contaminating matter.

Claim 14. (Original) The cartridge of claim 12 wherein said cap is color-coded to indicate desired properties of the contents of the cartridge.

Claim 15. (Original) The cartridge of claim 11 further characterized by said body and piston being formed from plastic material suitably colored to render the same impervious to the transmission of ambient light, thereby rendering the cartridge adapted to contain light-curable material in a manner to prevent premature curing of such material while stored in such cartridge.

Claim 16. (Currently amended) The cartridge of claim 11 wherein said ~~inner channel wall~~ nozzle channel effective diameter D_2 is at least 5 percent greater than said chamber wall exit port rim effective diameter D_1.

Claim 17. (Currently amended) The cartridge of claim 11 wherein said ~~inner channel wall~~ nozzle channel effective diameter D_2 is at least 10 percent greater than said chamber wall exit port rim effective diameter D_1.

Claim 18. (Currently amended) The cartridge of claim 11 wherein said ~~inner channel wall~~ nozzle channel effective diameter D_2 is at least 20 percent greater than said chamber wall exit port rim effective diameter D_1.

Claim 19. (Original) The cartridge of claim 11 wherein said nozzle entrance passage has a length and said length of said nozzle entrance passage is less than 20 percent of the diameter of said entrance port.

Claim 20. (Original) The cartridge of claim 11 wherein said nozzle entrance passage has a length and said length of said nozzle entrance passage is more than 3 percent of the diameter of said entrance port.

Claim 21. (Currently amended) The cartridge of claim 11 wherein said inner chamber wall has an inner chamber wall effective diameter D_3, and said inner chamber wall effective diameter D_3 is greater than said ~~inner channel wall~~ nozzle channel effective diameter D_2.

Claim 22. (Original) The cartridge of claim 11 wherein said nozzle has a bead circumscribing said nozzle.

Claim 23. (Canceled).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712.** Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Cris Rodriguez, can be reached at (571) 272-4964.

R.Lewis
November 28, 2007

Ralph A. Lewis
Primary Examiner
AU3732